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SPECIAL DATA COLLECTION SYSTEM EVENT REPORT.
NTS EVENT 'TYBO', 14 MAY 1975

J. R. Woolson, et al

Teledyne Geotech

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September 1975

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(1)

**SPECIAL DATA COLLECTION SYSTEM EVENT REPORT
NTS Event "TYBO", 14 May 1975**

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Alexandria Laboratories**

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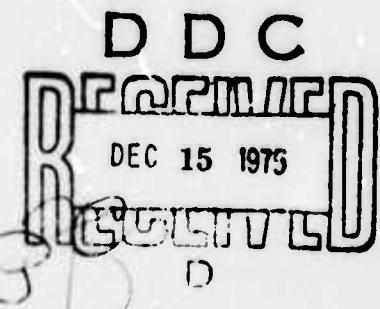
September 1975

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SDCS Event Report No. 10

NTS Event "TYBO", 14 May 1975

This event report contains seismic data from the Special Data Collection System (SDCS), and other sources for the above event. Published epicenter information from seismic observations is:

	Origin Time	Latitude	Longitude	m_b	M_s
NORSAR	14:00:05	38 N	116 W	5.7	N/A
LASA	14:00:23	38.3N	114.9W	5.5	N/A
Hagfors Array, Sweden	14:00:38	43 N	112 W	6.4	4.7

Using SDCS stations, LASA and NORSAR, the epicenter location becomes

SDCS & Arrays 14:00:02 37.3N 116.5W 5.7 4.4

All SDCS stations were operational for this event.

Severe instrument pulsing on the long-period vertical channel at HN-ME prevented analysis. Also at HN-ME, the long-period radial calibration was distorted. The Love wave was clipped at RK-ON and tape noise caused the short-period vertical trave body wave amplitudes to be questionable. The Rayleigh wave was clipped at FN-WV and the true orientation of all FN-WV horizontal channels is unknown.

Scaling factors on plots are millimicrons at 1 Hz (not corrected for instrument response) with the exception of LASA and NORSAR short-period plots. LASA SP scaling factors are millimicrons per inch. Scaling factors are not reported for NORSAR short-period.

STATION DESCRIPTION

SITE CODE	LOCATION	SITE COORDINATES			ELEVATION METERS	INSTRUMENTATION	
		DEG	MN	SECS		SHORT-PERIOD	LONG-PERIOD
ALPA	Alaska	65 14	00.0	N	626	None	31300
		147 44	36.0	W			
CPSO	McMinnville, Tennessee	35 55	41.4	N	574	6480 V 7515 H	SL210 V SL220 H
		085 34	13.5	W			
FN-WV	Franklin, West Virginia	38 32	58.0	N	910	KS36000	KS56000
		079 30	47.0	W			
LASA	Billings, Montana	46 41	19.0	N	744	HS10	7505A V 8700C H
		106 15	20.0	W			
HN-ME	Houlton, Maine	46 09	43.0	N	213	18300	SL210 V SL220 H
		067 59	09.0	W			
NORSAR	Kjeller, Norway	60 49	25.4	N	379	HS10	7505A V 8700C H
		010 49	56.5	E			
RK-ON	Red Lake, Ontario	50 50	20.0	N	366	18300	SL210 V SL220 H
		095 40	20.0	W			
WH2YK	White Horse, Yukon	60 41	41.0	N	8530	18300	SL210 V SL220 H
		134 58	02.0	W			

HYPOCENTER DETERMINATION

INPUT FOR EVENT
 14:00:00.0 37.000N 116.000W CKY.

STA.	ARRIVAL	RESIDUALS		DIST.	AZ.
		CAIC	REST		
LAO	14 02 54.8	-0.4	0.3	12.1	35.7
PK-ON	14 04 47.3	0.8	-0.4	21.2	42.9
CPO	14 05 25.7	-0.0	0.8	24.9	84.4
WH2YK	14 05 38.5	0.6	1.2	26.2	330.3
FN-WV	14 06 03.2	0.0	0.2	29.1	76.0
NN-ME	14 07 10.1	0.6	-0.0	36.8	60.4
NAO	14 11 31.3	-1.3	-2.2	73.2	24.0

67 HERRIN TRAVEL TIME TABLES

ORIGIN	LAT.	LONG.	DEPTH (KM)	SDV	IT	STA
14:00:14.5	37.733N	116.108W	82. CALC	0.7	4	7
14:00:01.7	37.259N	116.461W	0. REST	1.1	3	7

CAIC	REST
1 . 1	1 . 1
0 . 0	0 . 0
0 . 0 . 3 2	0 . 0 . 3 2
0 . 0 . 0 0	0 . 0 . 0 0
0 . 0	0 . 0
0 . 0	0 . 0

CHI2 COVERAGE ELLIPSE: 95 PER CENT CONF.. LEVEL, SDV= 1.68
 MAJOR 61.9KM, MINOR 37.9KM, AZ= 30 AREA= 7361 SQ.KM. RFST

4.

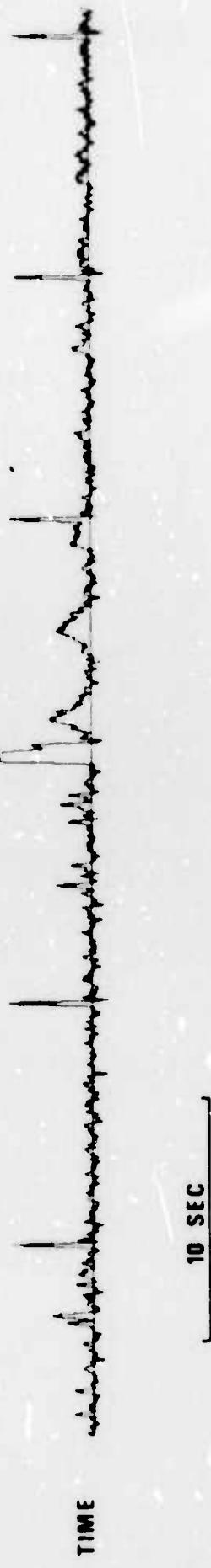
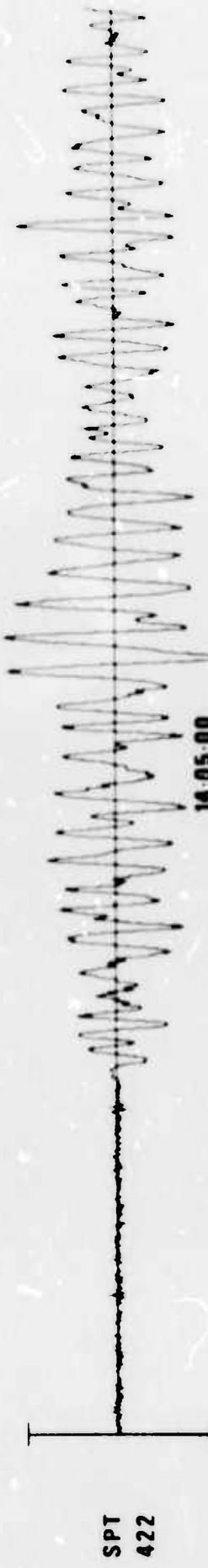
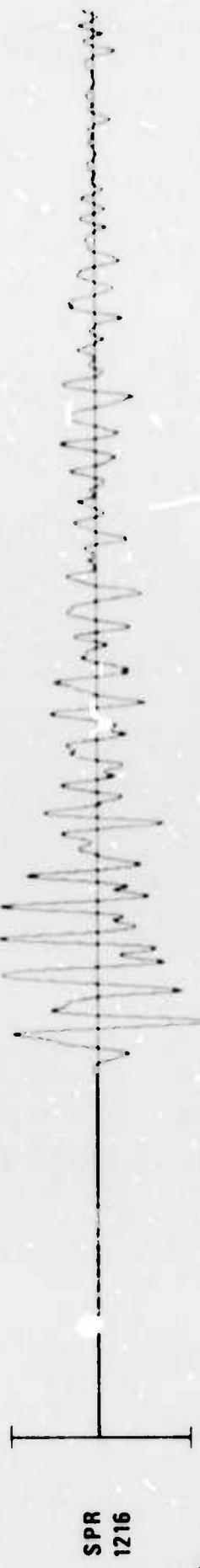
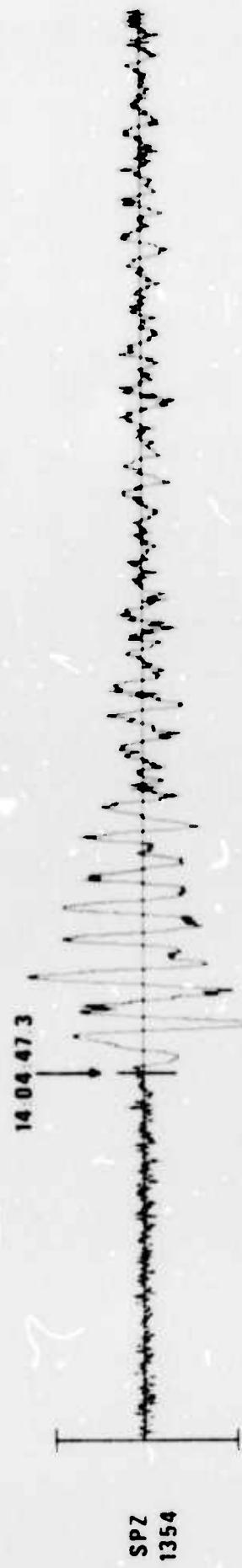
DATA SUMMARY

INPUT FOR EVENT 14 MAY 75
 14:00:00.0 37.000N 116.000W 0KM.

STA.	PHASE	ARRIVAL				MAGNITUDE			
		TIME	INST	PER	A/T	MB	MS	DIP	DIST
LAO	EP	14 02 54.8	SPZ	0.6					
LAO	LR	14 07 55.0	LPZ	14.0				12.1	
PK-ON	EP	14 04 47.3	SPZ	1.4					
PK-ON	LO	14 12 53.0	LPT	16.0	9999.				
PK-ON	LR	14 13 42.0	LPZ	13.0	1605.		5.65		
CPO	EP	14 05 25.7	SUM	0.8	1317.	6.29		21.2	
CPO	LO	14 13 45.0	LPT	17.0	769.			24.9	
CPO	LP	14 15 28.0	LPZ	14.0	1615.		5.72		
WH2YK	EP	14 05 38.5	SPZ	0.9	210.	5.44		26.2	
WH2YK	LO	14 14 47.0	LPT	22.0	210.				
WH2YK	LR	14 16 55.0	LPZ	15.0	906.		5.50		
PN-WV	EP	14 06 03.2	SPZ	1.4	218.	5.64		26.2	
PN-WV	LO	14 15 58.0	LPT	18.0	286.			29.1	
PN-WV	LR	14 18 05.0	LPZ	18.0	9999.			29.1	
ALPA	LR	14 19 51.0	LAB	22.0	83.		4.56	33.5	
HN-ME	EP	14 07 10.1	SPZ	1.4	139.	5.37		36.8	
HN-ME	LO	14 19 59.0	LPT	19.0	35.				
HN-ME	E	14 22 36.0	LPR	17.0					
NAO	EP	14 11 31.3	AB	0.9	156.	5.77	.	73.2	
NAO	LR	14 42 07.0	LAB	23.0	22.	4.33		73.2	

ORIGIN	LAT.	LONG.	DEPTH (KM)	MAG	SDV	STA	LPMAG	LPSDV	LPSTP
14:00:14.5	37.733N	116.108W	82. CALC	5.59	0.28	5	4.44	0.2	2
14:00:01.7	37.259N	116.461W	0. REST	5.70	0.37	5	4.45	0.2	2

RK-ON 14 MAY 75

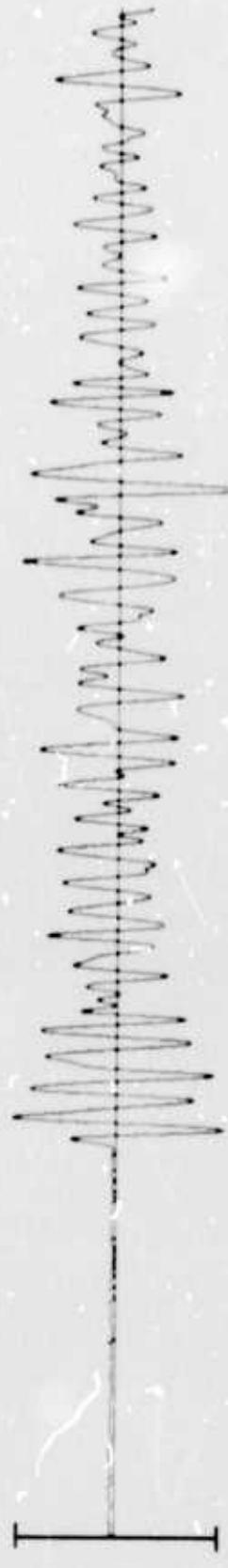


CPSO 14 MAY 75

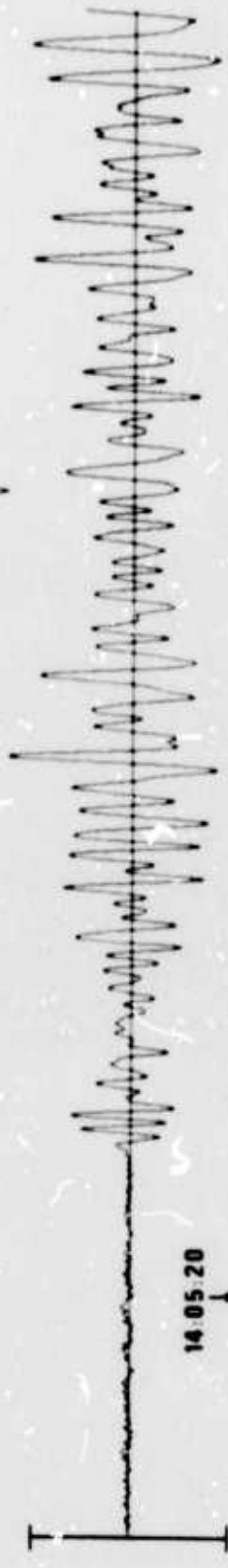
14.05.25.7



SPZ
1107



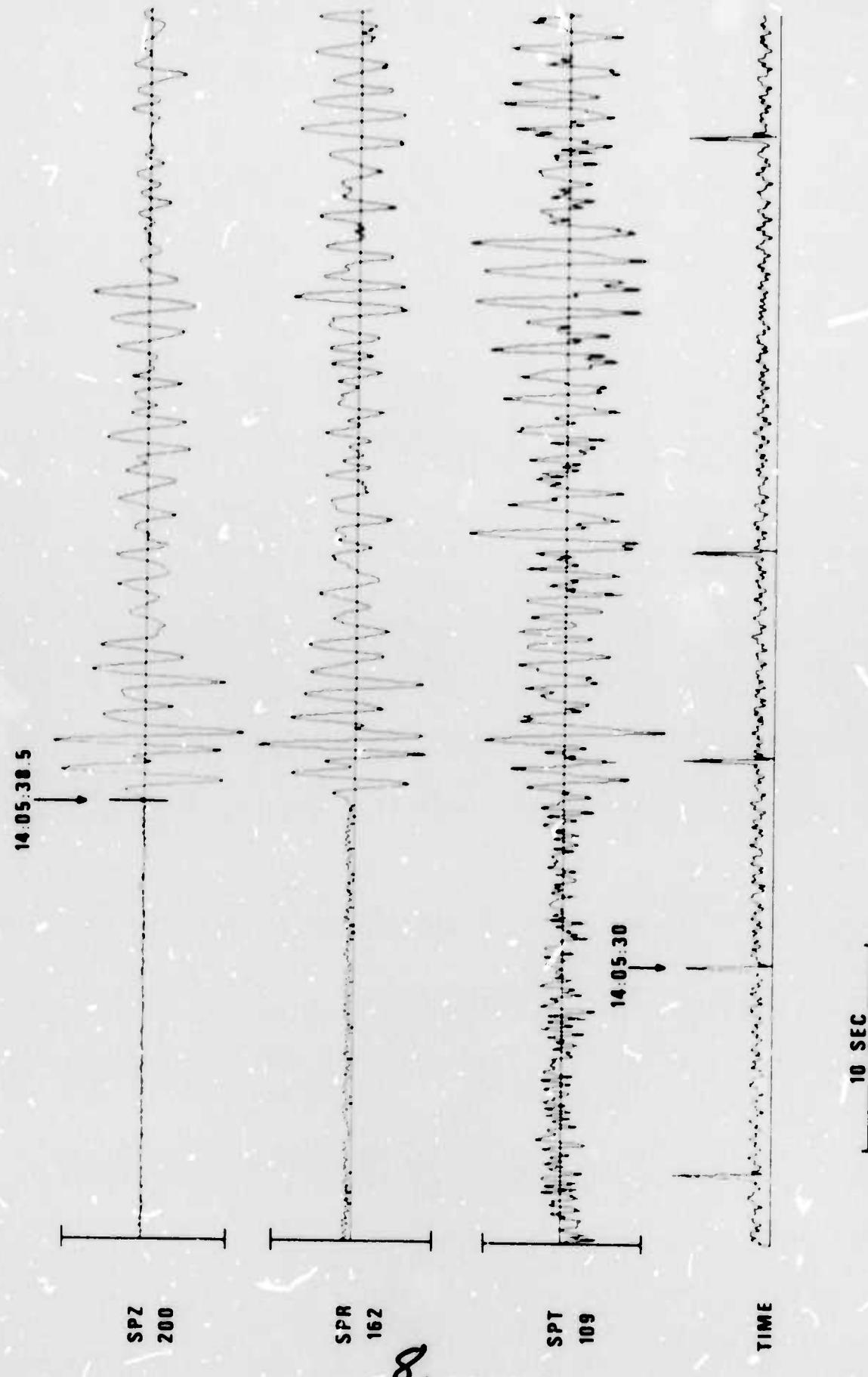
SPR
376



SPT
241

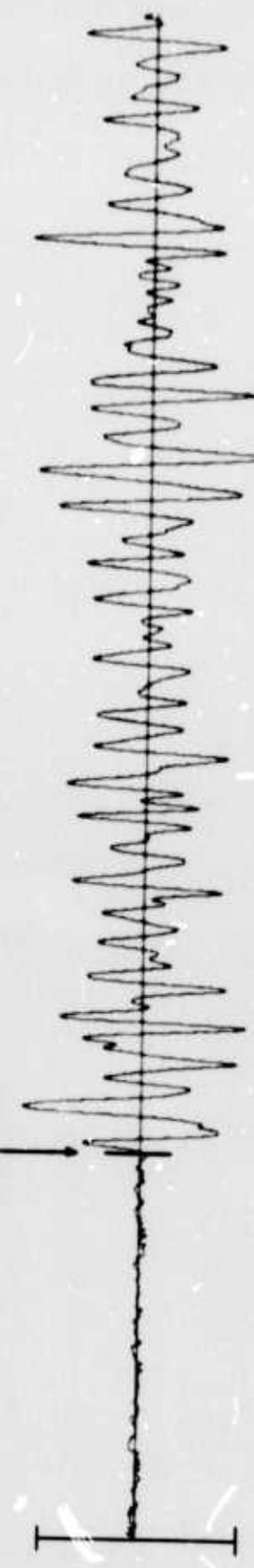
TIME

WH2YK 14 MAY 75

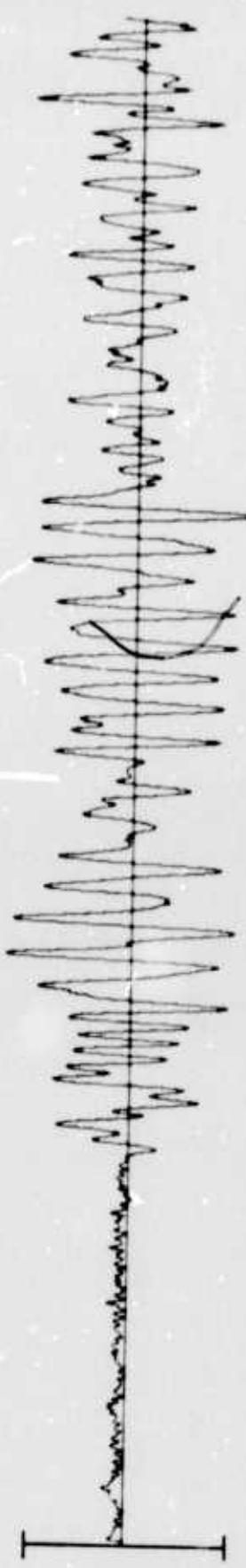


FN-WV 14 MAY 75

14:06:03.2



SPZ
166

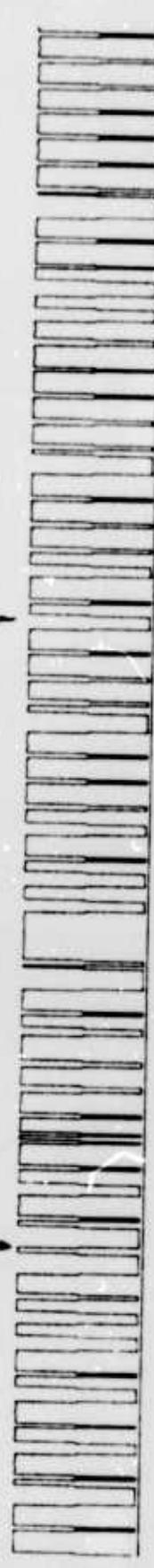


SPR
113
9.



SPT
126

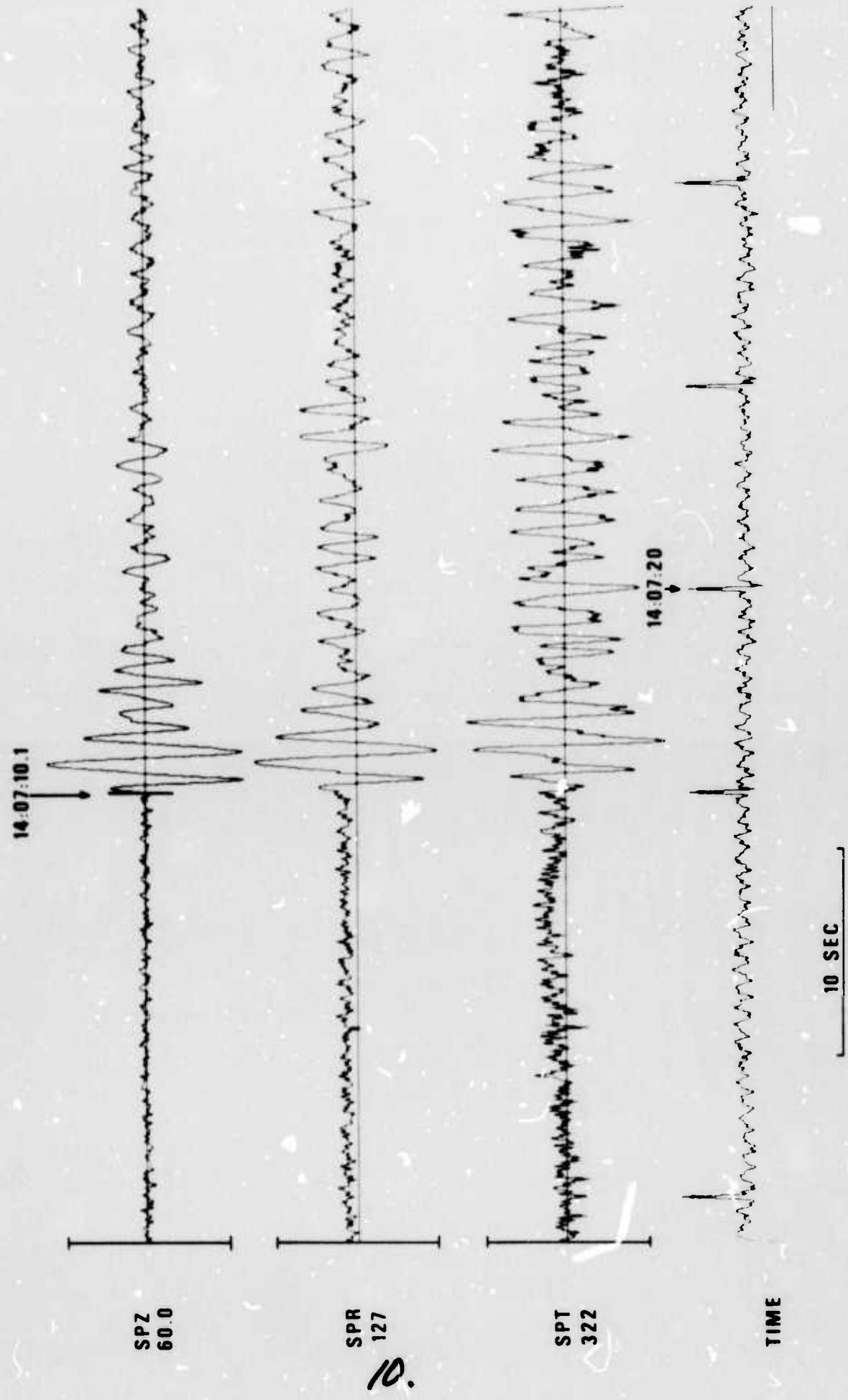
14:06:00



TIME

10 SEC

HN-ME 14 MAY 75



LASA

1 14 MAY 1975

2 14 0 23 38.2N 114.9W

3 14 2 54.7 LAO P

06 D 5.8 37 NEVADA

192.4

1.1

8.2

10.6 220.7

EPX 87262

ABN 50

14:02:44.7

BP-6 0.6-2.0 Hz

AB 250

FHB 230

PAB1 230

PAB2 250

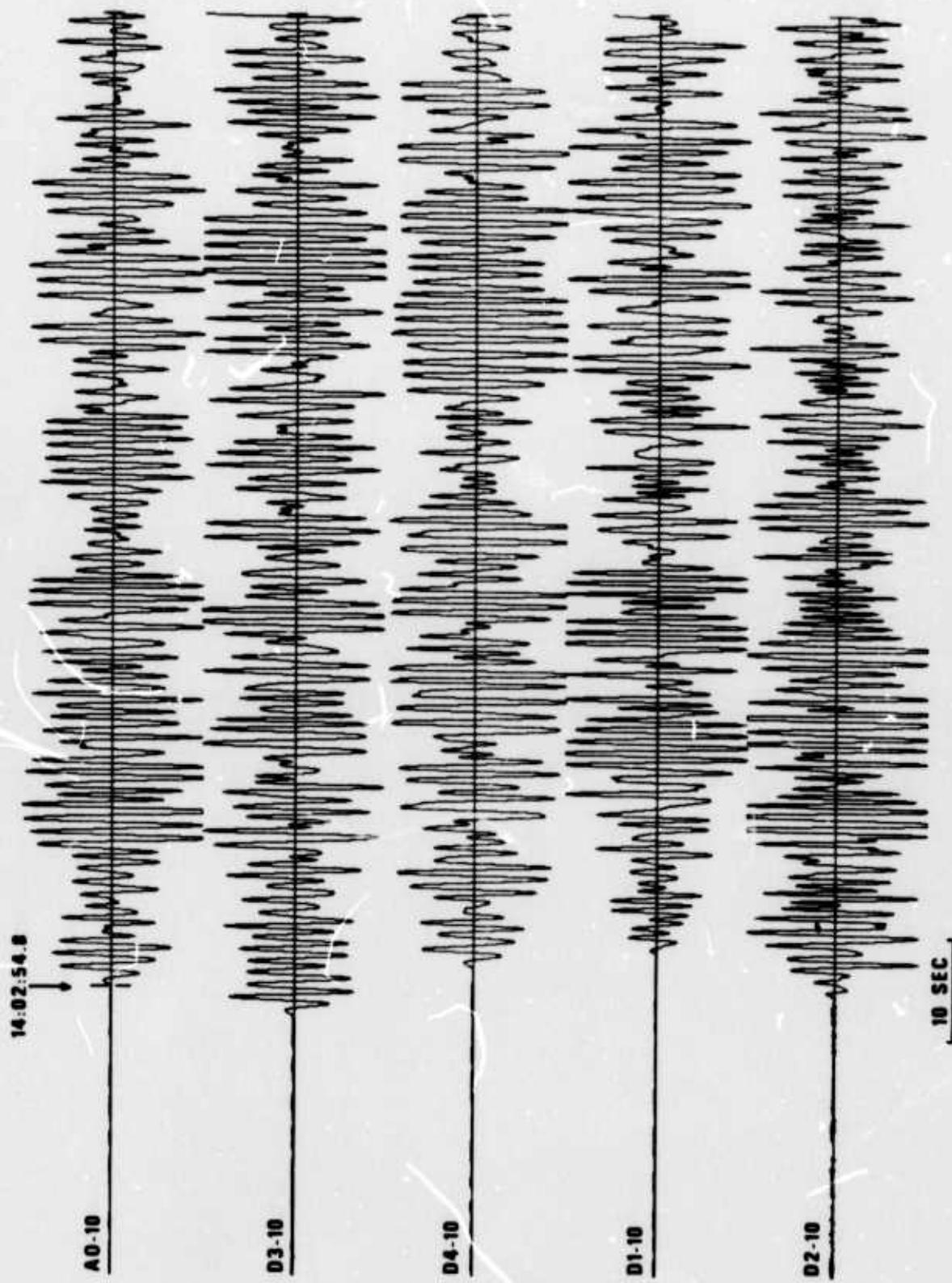
PAB3 210

PAB4 310

10 sec

11.

LASA (INDIVIDUAL SHORT-PERIOD INSTRUMENTS) 14 MAY 75



(IND AMPLITUDE DETERMINATIONS MADE DUE TO UNRESOLVED SCALING PROBLEMS)

12.

NORSAR EVENT FILE

1975 MAY 14

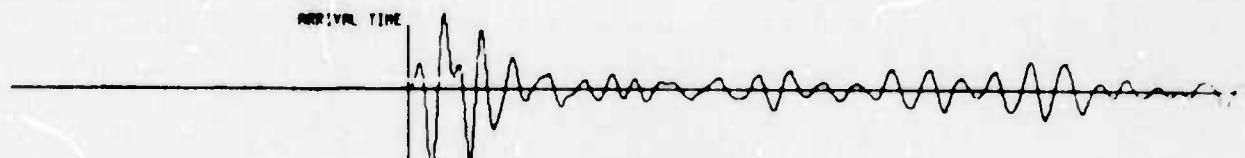
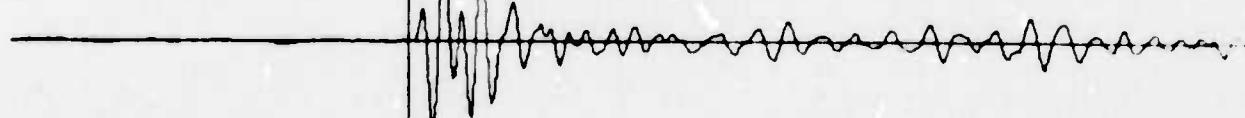
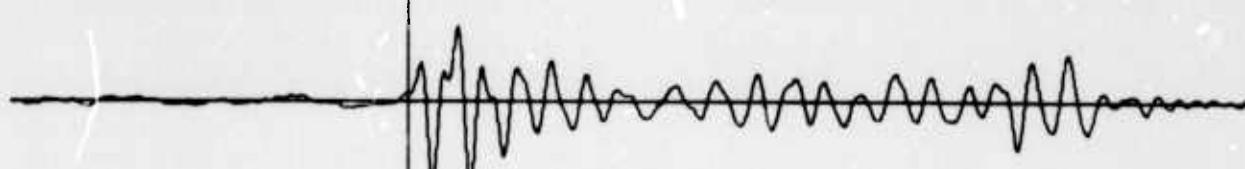
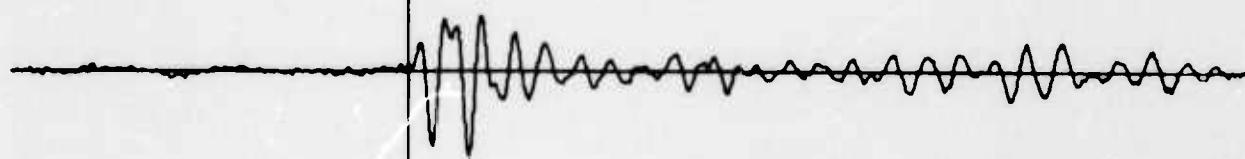
EPX NO. 43940 ARR. 14.11.31.3 38.2N 115.6W 5.7MB 33KM

DIST = 72.1 AZI = 318.2 AMP = 108.3 PER = 1.3 UMETH 2

 = 5 SECONDS

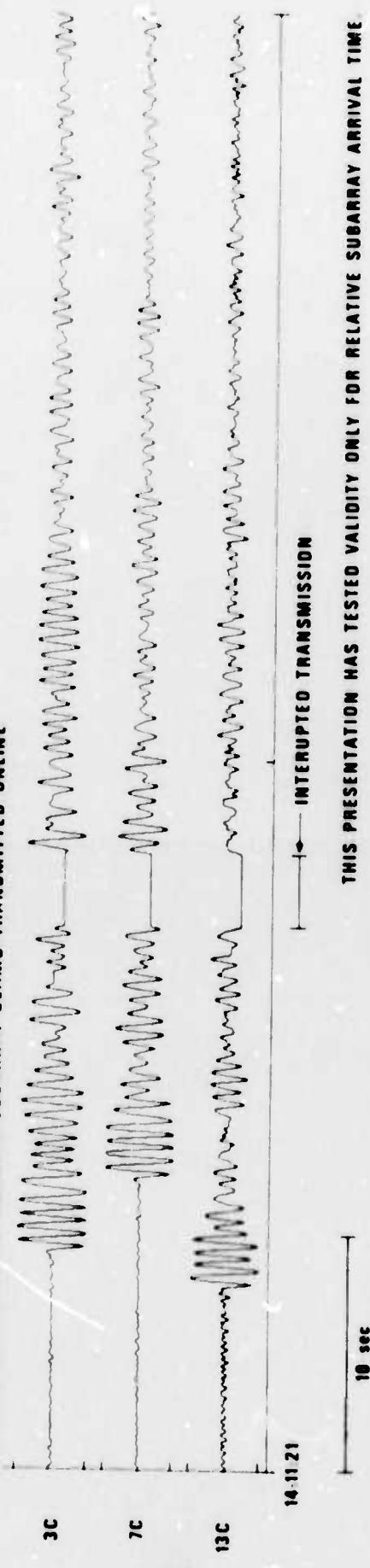
ARRIVAL TIME

AB

SAB
3BSAB
1CSAB
4CSAB
13C

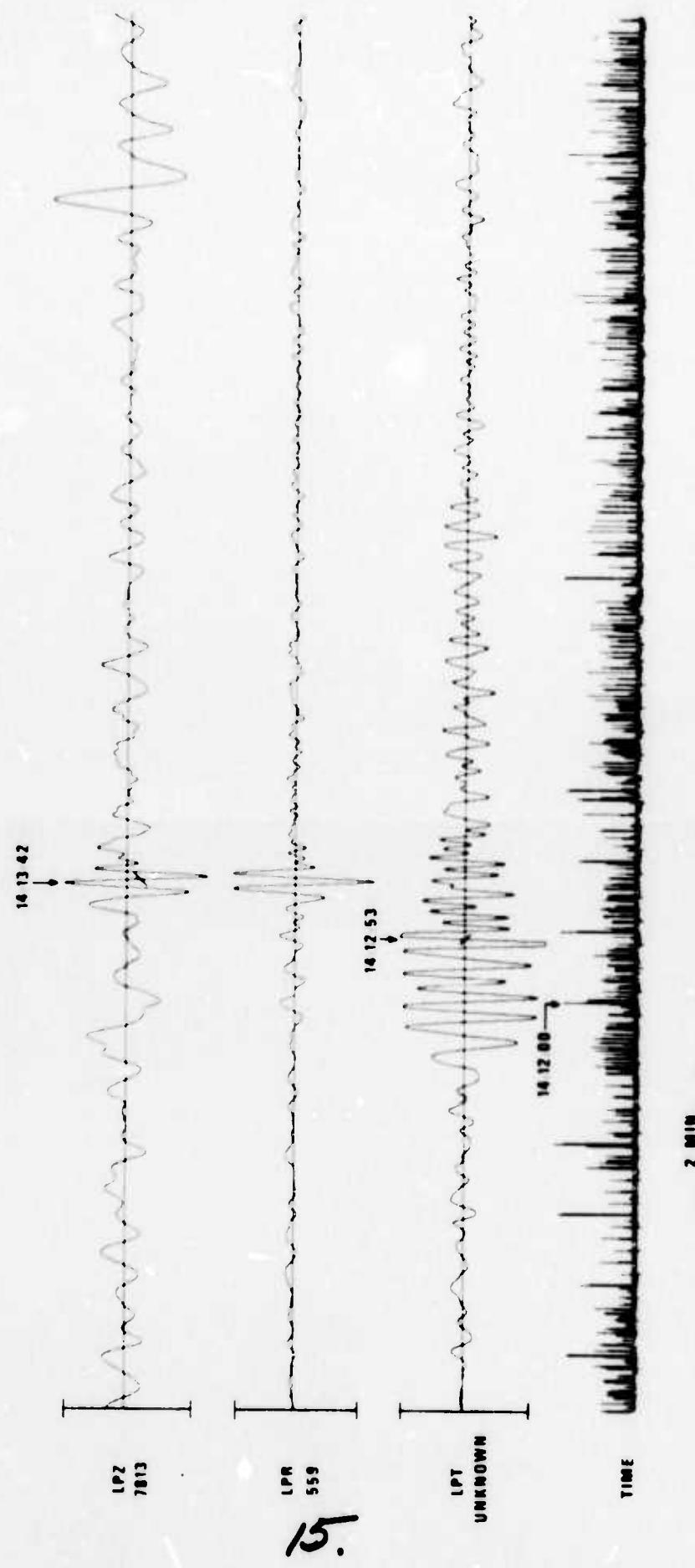
13.

NORSAR WESTERN NORTH AMERICA SUBARRAY BEAMS TRANSMITTED ONLINE

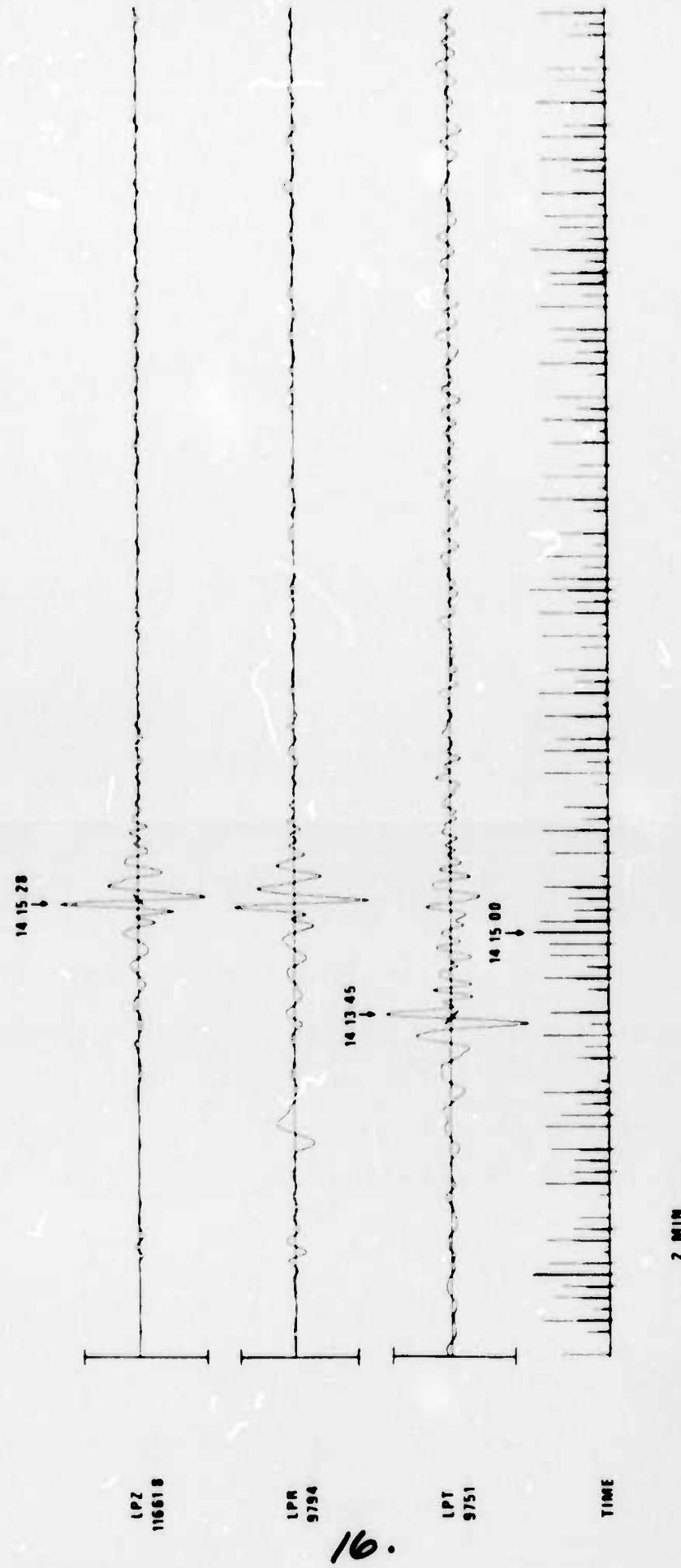


14.

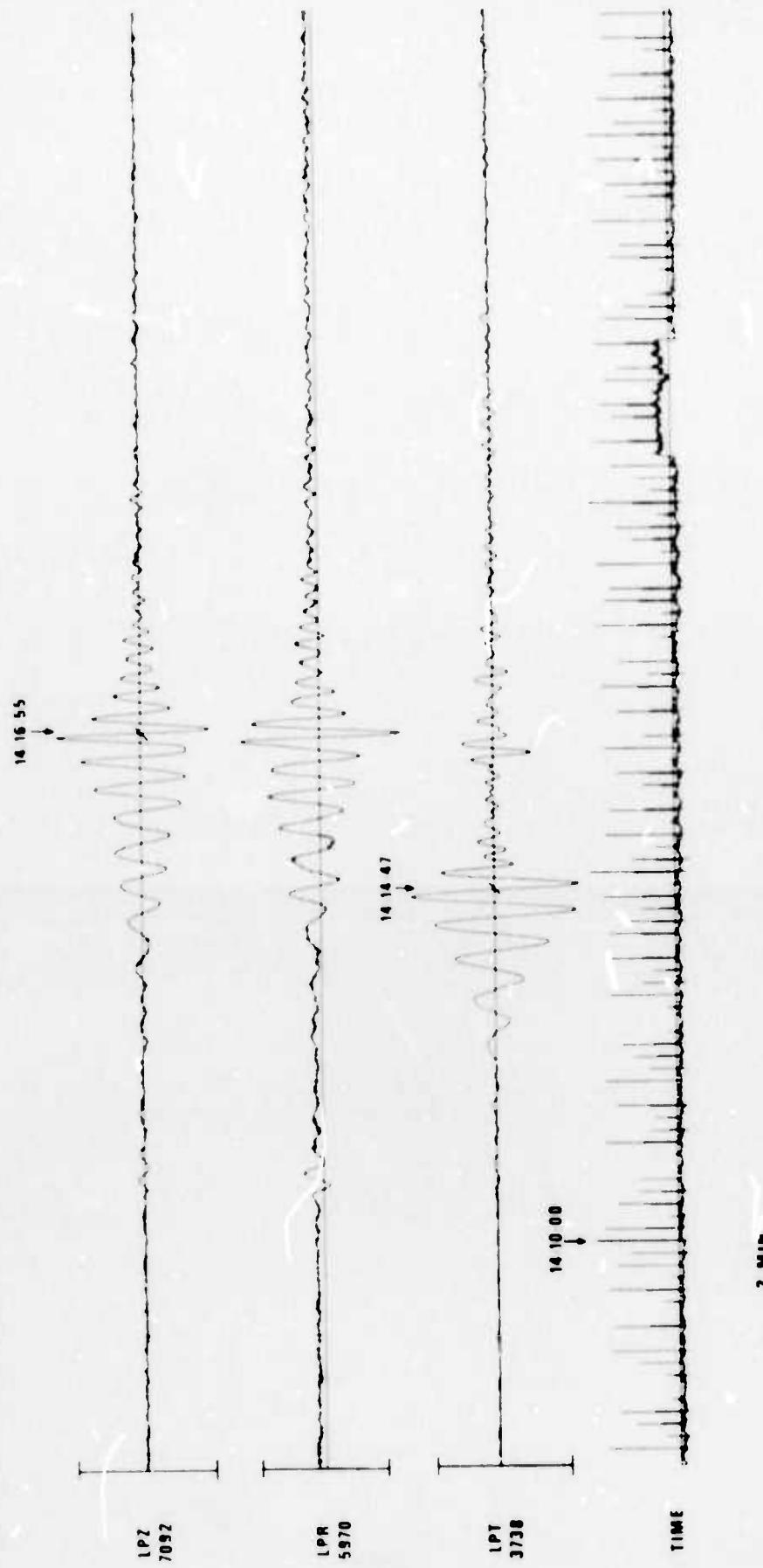
RK-ON 14 MAY 75



CPSO 14 MAY 75

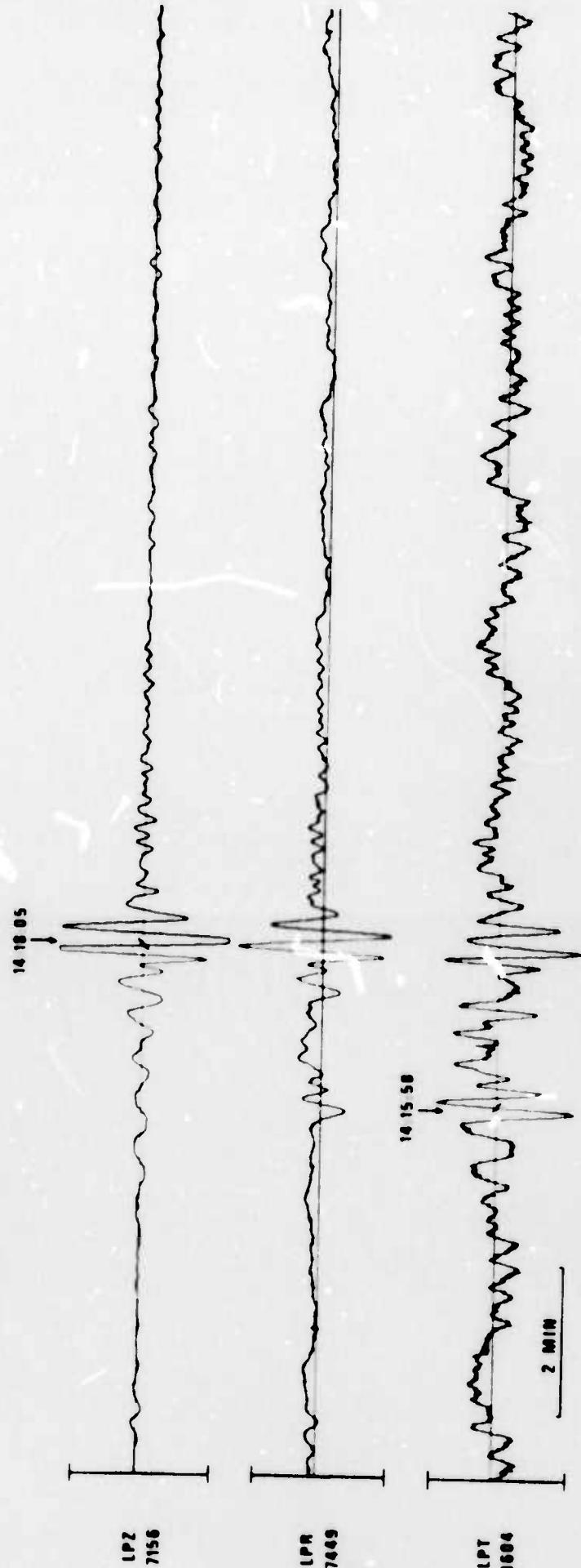


WH2YK 14 MAY 75



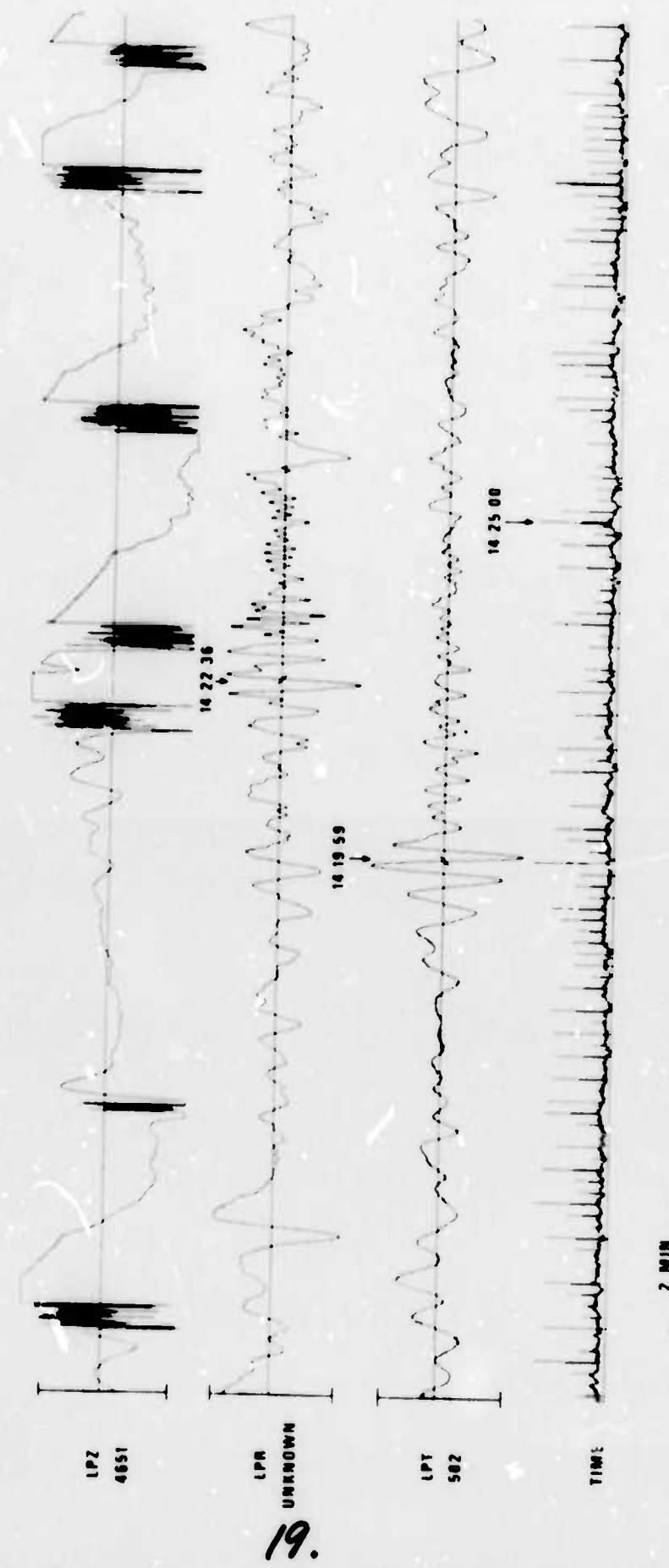
17.

FN-WV 14 MAY 75



18.

HN-ME 14 MAY 75



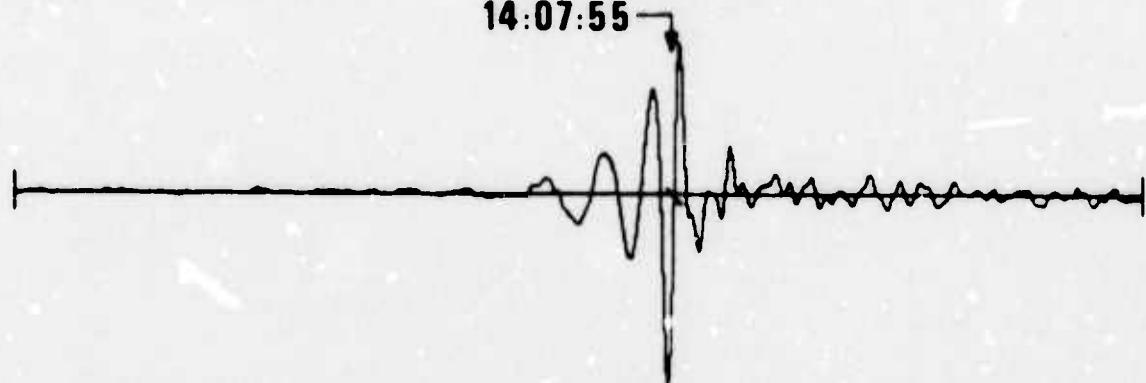
19.

LASA C4 SUBARRAY

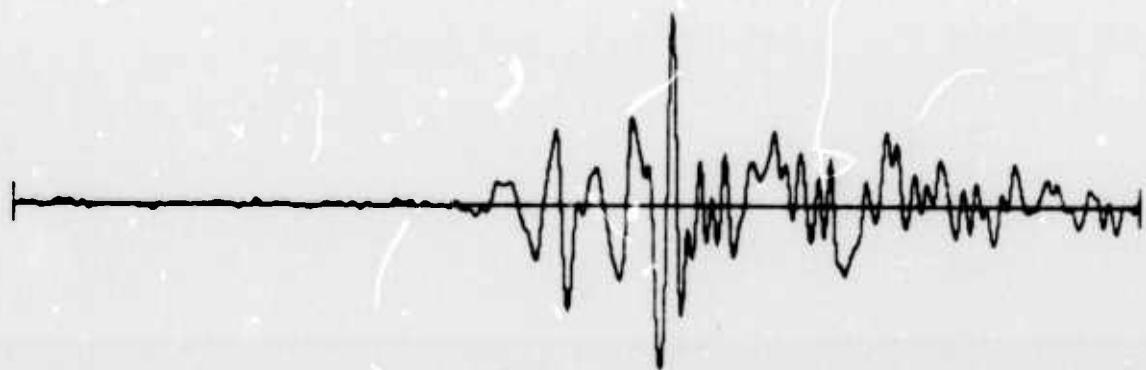
14 MAY 75

14:07:55

LPZ

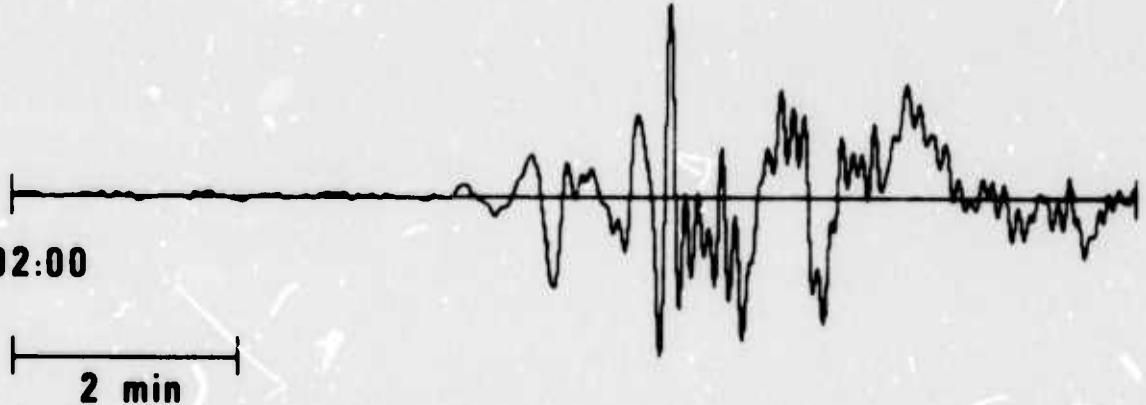


LPN



LPE

14:02:00



2 min

(No amplitude determinations made due to unresolved scaling problems.)

20.

ALPA LONG PERIOD BEAMS 14 MAY 75

14:19:51

LP VERTICAL
1910 m μ

LP RADIAL
1580 m μ

LP TRANSVERSE
1850 m μ

21.

14:11:51

11 min

HORIZONTAL ROTATION QUESTIONABLE

NORSAR LONG PERIOD BEAMS 14 MAY 75

14:42:07

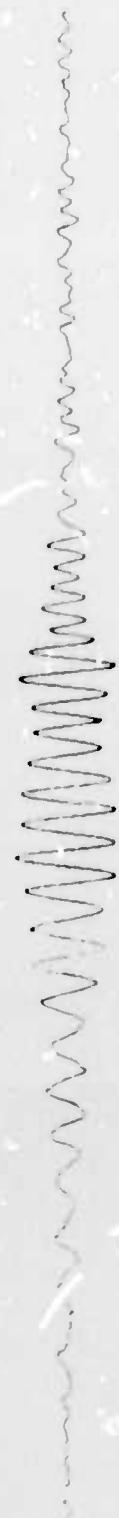
LP VERTICAL

508 m μ



LP RADIAL

366 m μ



LP TRANSVERSE

128 m μ



22.

14:31:56

11 min!